

AIR COMMAND AND STAFF COLLEGE

AIR UNIVERSITY

BETTER, FASTER, CHEAPER:

Acquisitions in the 21st Century

by

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Preface

I chose to write on the problems endemic in the acquisitions community because, as a career program manager, I see first-hand how these problems affect both my community and national security. If DoD and civilian leadership do not address the problems articulated in this paper, the possibility exists that the defense acquisitions enterprise will not be able to give the warfighter what they need to successfully accomplish the mission. While removed from the front lines, I try to keep the warfighter in mind with every action I take as an acquisition professional – as the warfighter is the one who will suffer due to my delays or failures to provide them the critical capabilities they require.

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Disclaimer

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Abstract

The erosion of America's industrial base since World War II has affected national security by decreasing the available production and intellectual capacity. Some factors attributing to this phenomenon are the reduction in the number of firms in the defense industry, budgetary issues brought about by today's fiscally constrained environment, the practice of outsourcing capabilities overseas, the lack of a threat to state survival, and the increased specialization of the defense industrial base. Additionally, the defense acquisition organizational structure is out of balance. To function efficiently and effectively, defense acquisition must strike a balance between the requirements generation and approval process, the budgeting process, and the method by which defense acquisition professionals acquire materiel solutions. However, the lack of common oversight, prioritization and the conflicting timelines of the three decision support systems affect national security by limiting the options and capabilities available to the warfighter. To this point, Department of Defense leadership has tried to remedy the problem by placing emphasis on reforming how defense acquisition professionals go about procuring weapon systems under the auspices of "acquisition reform." However, acquisition professionals and Department of Defense (DoD) leadership are wasting their time because the current effort simply addresses symptoms of the problem, not the problem itself. The real dilemma in the defense acquisition system is the incompatibility in the "reward system" of the various stakeholders in defense acquisitions. Solving the overall problems in the defense acquisition enterprise requires a more robust and flexible industrial base, more interaction and harmony between the acquisition decision support systems and adequately addressing the core interests of the various stakeholders in the defense acquisition enterprise. Until then, the acquisitions community will never see true reform.

Introduction

Is defense acquisition today flexible and robust enough to handle the challenges of the twenty-first century? The answer is undoubtedly no! America's vanishing industrial base, coupled with an extraordinarily complex acquisition enterprise and competing parochial interests hampers the United States' ability to field a capable warfighting force.

The erosion of America's industrial base since World War II has contributed to the problem by decreasing the available production and intellectual capacity. A comparative analysis of the industrial base during World War II and today shows some of the factors hampering the current industrial base. These include the reduction in the number of defense contractors; budgetary issues; outsourcing capabilities overseas; the lack of a threat to state survival; and increased specialization of the defense industrial base. Additionally, the defense acquisition organizational structure is out of balance.

To function efficiently and effectively, defense acquisition must strike a balance between the requirements generation and approval process, the budgeting process, and the method by which defense acquisition professionals acquire materiel solutions. Currently, one responsible entity does not oversee all these processes, allowing them to mature and change to varying degrees. Additionally, these processes work on vastly different timelines, which generates even more inefficiency and conflict. Finally, the lack of prioritization of validated requirements hinders the acquisition process by spreading already limited resources too thin. Common oversight, along with increased involvement between responsible members of each process could help alleviate some of the difficulties encountered on a recurring basis within the defense acquisition system. To this point, Department of Defense leadership has placed emphasis on

reforming how defense acquisition professionals go about procuring weapon systems under the auspices of “acquisition reform.”

Acquisition reform attempts to fundamentally change how the procurement of weapon systems takes place through changes in bureaucratic processes, emphasizing the importance of reining in cost and schedule growth, and a change in the mindset of how and why acquisition professionals make decisions. However, acquisition professionals and Department of Defense (DoD) leadership are wasting their time because the current effort simply addresses symptoms of the problem, not the problem itself. The true problem in the defense acquisition system is the incompatibility in the “reward system” of the various stakeholders in defense acquisitions: Congress, the defense industry, the requirements community, the budgeting community, defense acquisitions professionals, and – most importantly – the warfighter. To fix the problem, a change in policy or law must force these interests to coincide. Before addressing the underlying problem in defense acquisitions, one must analyze the effect America’s industrial base and organizational structure has had on defense acquisitions.

Going, Going, Gone: America’s Vanishing Industrial Base

When comparing the current defense acquisition enterprise to its existence during the period surrounding World War II, several factors limit US ability to effectively mobilize today’s defense industrial base. First, the number of major defense contractors has declined sharply in the years after World War II. Second, budgetary issues have continued to hamper the domestic defense industrial base. Third, the overseas outsourcing of certain parts of the domestic industrial base can affect national security. Fourth, the lack of a threat to state survival does not motivate the government and industry to cooperate as fully as in World War II. Finally, the incompatibility between the needs of the military and the civilian sector – with respect to

technology and capability – have caused the defense industrial base to move in a direction that does not lend itself to effective mobilization for national defense. In effect, the evolution in the nature of the required technology has produced a niche market of sorts within the overall domestic industrial base. As a result, today's domestic industrial base cannot quickly produce the equipment required for a conflict on the scale of World War II.

To begin, a look at World War II and the defense industrial base leading up to and during World War II shows both the scale of mobilization and the impact upon the outcome of the war. Alan L. Gropman states the Allies won World War II due to “superior armaments production.”¹ The acquisition enterprise and mobilization of the US domestic industrial base played a critical role in determining this successful outcome. Planning for mobilization, Louis Johnson (the Assistant Secretary of War from 1937-1940) worked tirelessly to reach agreements between the government and both the civilian and defense industries.² Johnson realized these relationships were necessary to produce the sheer volume of material on the timeline required by both the US and its allies during the upcoming war. During this time, proponents of the New Deal philosophy supported public labor projects, such as the construction of the Hoover Dam. These parochial interests highlight a historical example of the same type of problem that still exists today – the desire of politicians to further their political goals at the expense of the industrial base. The New Deal politicians thought these public labor projects would help reduce the rampant rate of unemployment brought about by the Great Depression. As a result, many lawmakers saw Johnson's approaches as pro-business and pro-industry, diametrically opposed to their view that public works and labor would provide the solution to any problem.³ While loathed by the New Deal politicians, Congress and the President eventually endorsed the collaboration between the government and industry.⁴ This friendly cooperation in pursuit of

common goals enabled the near total military mobilization of the US domestic industrial base. Without these agreements, the US and its allies would not have had the materiel advantage they enjoyed during the latter half of World War II. The aircraft production industry represents one portion of the domestic industrial base that required significant expansion.

On 16 May 1940, the aircraft industry received a huge challenge from President Roosevelt when he appeared before Congress to request a program of record for production of no less than 50,000 aircraft per year.⁵ According to I.B. Holley, President Roosevelt did not base his figure of 50,000 aircraft on the results of any detailed study, but rather on his own intuition.⁶ Holley also says that while the figure of 50,000 aircraft per year was a grand slogan to excite taxpayers, the aircraft industry and Congress, the reality of converting it to a true acquisition program was daunting.⁷ Compounding the issue of massive increases in production, the Air Corps was re-examining the doctrine regarding the role of fighter aircraft in the aftermath of the Battle of Britain.⁸ This soul-searching endeavor meant the Air Corps could not articulate the ratio of fighter to bomber production requirements because they were confronting the issue of shifting strategic priorities. To solve this problem, planners split the President's call for aircraft into many different detailed programs with a much narrower focus. For example, the Army and Navy first split the total number of 50,000 based upon their respective requirements (13,500 – Navy; 36,500 – Air Corps).⁹ Additionally, allies had also contracted for a number of aircraft, cutting into the domestic requirement. Allied demands would continue to affect domestic production and requirements under the Lend-Lease Act of 1941. The Air Corps also broke into discrete chunks the requirement for trainer aircraft, frontline combat aircraft, attrition reserve and projected replacements.¹⁰ Now that the Air Corps had a plan, they had to find the industrial capacity to produce the required aircraft.

The National Defense Advisory Commission (NDAC) produced a report in July 1940 assessing the current industrial capacity to produce aircraft – both airframes and engines. To accomplish the President’s request of 50,000 aircraft per year, the report stated that industry must increase the production floor space by 200 percent and their labor force by 400 percent.¹¹ The government financed the expansion of production capacity through a variety of means at a cost of approximately \$3B from 1940-45.¹² Though some of this expansion was for Government-Owned, Contractor-Operated (GOCO) facilities, the vast majority went toward expanding facilities owned by existing firms, most notably Detroit automobile manufacturers. Leaders of the automobile industry responded enthusiastically to the NDAC commissioner, William Knudsen, when he personally requested their help in producing bomber aircraft.¹³ In the end, the US aircraft production capacity had increased dramatically through the complete mobilization of the existing aircraft production infrastructure as well as expanding and converting elements of the civilian industrial production infrastructure. According to Gropman, the US produced 303,717 aircraft between 1 January 1940 and 14 August 1945. To accomplish such a monumental task, the “aircraft production floor space increased from 13 million square feet in the prewar period to more than 167 million square feet in 1943...” and incorporated more than fifty contractors.¹⁴

Today’s defense acquisition personnel face challenges vastly different from those of World War II. First, the diminishing industrial base severely constrains potential production capacity and can affect the US defense strategy. In the recent past, fifteen major American defense contractors have either consolidated or altogether gone out of business.¹⁵ Today, four major defense contractors remain: Boeing, Lockheed Martin, Northrop Grumman and Raytheon. True, smaller aircraft manufacturers remain in niche markets such as Sikorsky (helicopters), but

the Big 4 comprises the vast majority of defense aircraft industrial expertise. With the consolidation of these companies, the overall production capacity has decreased markedly. The F-35 Joint Strike Fighter (JSF) program shows a marked difference between the production capacity available during World War II and the current capacity that the aircraft production industry can provide.

The F-35 represents the DoD's largest acquisition program in terms of total estimated procurement cost and will eventually obtain more than 2,450 F-35s.¹⁶ However, Lockheed Martin will produce a maximum number of only 130 F-35s in a given year, completing the Navy and Marine Corps requirement in Fiscal Year 2025 (FY25) and the Air Force requirement in FY34.¹⁷ This production schedule is a dramatic decrease from the 6,908 P-51s produced in 1944.¹⁸ To be sure, this statistic shows a snapshot of the planned production schedule of the F-35 versus a wartime surge production of the P-51, but the difference is staggering. Lockheed Martin, even if it surged to maximum capacity could likely never reach the numbers seen during World War II. Critics of this position will argue that both the cost and capability of the F-35 is much higher than that of a P-51 and the comparison does not appear valid. A number of additional factors drove down the cost of the P-51. The sheer quantities produced, coupled with the extraordinarily cheap labor made the aircraft per unit cost much lower than during a peacetime procurement profile. While the cost is definitely higher, today's F-35 attempts to accomplish the exact same task as the P-51 during World War II: creating a capability gap between the US and the adversary. Additionally, the cost of the F-35 is directly attributable to the US free market society. Supply and demand dictate the cost of a commodity on the open market. In the case of the F-35, only a very few number of suppliers can fill the demand for the

required capability, whereas a number of suppliers could have fulfilled the demand for the P-51. Thus, fiscal realities within the defense budget continue to hamper the defense industrial base.

From 1943-45, defense spending accounted for nearly 40% of the US Gross Domestic Product (GDP), and close to 90% of capital outlays.¹⁹ When analyzing the defense spending during World War II, procurement made up only a portion of overall spending. However, the vast amount spent on military hardware meant existing contractors could maintain or expand their businesses and encouraged the formation of new firms. In comparison, the Fiscal Year 2009 (FY09) budget represents 4.8% of GDP and 17.3% of capital outlays.²⁰ Of the \$690.3B allocated to the DoD, procurement represents only \$142.7B.²¹ In light of this decrease in spending relative to both GDP and capital outlays coupled with the increase in cost of goods, the defense industrial base has atrophied since World War II. Certainly, spikes have occurred when the US required additional assets/capabilities during wartime, but not to the levels seen during World War II. In general, defense outlays as a percentage of GDP have decreased over the last several decades and will continue to feel more pressure because of the rising cost of social programs like Medicare and Medicaid. As a result, mandatory programs are crowding out discretionary spending – of which defense is a large target. This decline in defense spending has forced the defense industry to make hard choices in order to remain solvent. To combat this decline in spending while simultaneously attempting to preserve expertise, defense contractors decided to consolidate into defense mega-corporations as mentioned above.

The mega-corporations formed by the consolidation process require a vast amount of revenue to remain profitable. The fiscal constraints placed on the DoD coupled with the rising cost of procuring defense assets has hamstrung the domestic defense industrial base. This means that the DoD can no longer afford the vast number of procurement programs it enjoyed in

previous years simply because they cannot afford to pay the defense contractors. As a result, the existing defense contractors have had to compete vigorously for the few large defense contracts awarded by the government in recent years. In some cases, losing a contract to another bidder has nearly forced defense contractors out of business. To prevent bankruptcy, US defense contractors have begun to take precautions against a lack of US demand for weapon systems. One of the precautions taken in response to the downturn in the domestic demand for arms is the relatively new practice of looking overseas to create additional revenue.²² The phenomenon of offshoring represents one aspect of this exploration for income beyond the domestic front.

Offshore outsourcing, or offshoring, presents a new challenge to the domestic industrial base. F. John Reh defines offshoring as the practice of “outsourcing...work to ‘foreign’ or ‘offshore’ companies, solely to take advantage of lower labor rates in those countries...”²³ While outsourcing has happened for many years, the widespread practice of offshoring is relatively new. The globalization of industrialized states’ economies, coupled with the vast increase in technology available to developing countries has increased the attractiveness of this option. Offshoring represents another competing interest in the varying “reward systems” of the defense acquisitions enterprise. The fact that shareholders demand increased profitability forces defense contractors to look for additional methods to decrease cost while simultaneously increasing gross revenue. Currently, offshoring represents one method defense contractors utilize to respond to their shareholders. However, this practice has important and far-reaching effects on the US domestic industrial base.

Dr. Sheila Ronis, President of the University Group, Inc., told Congress on 17 July 2006 that neither lawmakers nor industry professionals can (or should) separate the defense industrial base from the overall base.²⁴ Thus, if any portion of the US domestic industrial base erodes, it

has the capability to impact national security. The principal impact offshoring has on national security is that offshoring rids the domestic industrial base of capability and expertise required to maintain a credible fighting force. Additionally, offshoring could deprive the nation of critical resources in time of war if the US goes to war with any of those countries to which it outsources capabilities.²⁵ In the US defense industrial base, this gap in capability and expertise manifests itself in the form of diminishing manufacturing sources and material shortages (DMSMS).

The DoD states that DMSMS is important because “the loss or impending loss of manufacturers of items or suppliers of items or raw materials may cause material shortages that endanger a weapon system’s or equipment’s development, production, or post-production support capability.”²⁶ Essentially, DMSMS means that the manufacturer (for a number of reasons) decides not to continue the production of the item or subassembly. This decision, according to Colonel Michael J. Cole, USAFR, affects more than just the production floor space.²⁷ Historically, one of the metrics used by industrial experts to ascertain the state of the industrial base has been total production floor space. However, Cole asserts that while the loss of the actual factory is important, the loss of the experienced laborer and production knowledge base is even more important.²⁸ In the future, this lack of expertise in the defense industry will only increase. In proportion to other disciplines, fewer US students are pursuing Science, Technology, Engineering and Mathematics (STEM) degrees, hurting those defense contractors who rely on American citizens to replenish their ranks.²⁹ Increasingly, the secondary and post-secondary STEM degrees earned in the US are by foreign-born students.³⁰ Many of these students are either ineligible to work in the defense industry or go back to their native country to work. The desire for increased profit margin is the reason typically articulated by companies for offshoring a portion of their business. Globalization has enabled companies to find laborers in

foreign lands willing to work twice as hard to produce the same product for one-fifth of the pay as American laborers.³¹ The US government has taken notice, and realizes the threat this situation poses.

The US government has begun a limited effort to ensure the domestic industrial base remains both intact and focused on domestic priorities through multinational partnerships and legislation. Recently, the US government has tried to maintain the domestic industrial base through multinational partnerships. Multinational partnerships serve several purposes, two of which are vitally important to the US industrial base. Multinational partnerships allow US defense contractors to partner with their overseas counterparts on common goals articulated by each government. This gives the US government a chance to focus the defense contractors on domestic priorities. Additionally, multinational partnerships allow the US to pursue its priorities while foreign governments help subsidize the cost.³² For instance, multinational partnerships in common weapon systems (such as the F-35) will turn into the rule, not the exception. The US simply cannot afford to foot the entire Research, Development, Test & Evaluation (RDT&E) cost on all modern aircraft programs. On the other hand, defense contractors must turn a reasonable amount of profit to remain viable. As a result, the high expense and complex technology extant in today's defense articles require compromises on the part of both the US government and the defense contractors. Multinational partnerships represent one type of compromise in that the US government is able to fill some of its domestic requirements with a material solution while defense contractors generate much-needed revenue. Beyond multinational partnerships, legislation exists to preserve the US industrial base.

Passed in 1941, the Berry Amendment represents the landmark legislation aimed at protecting the US defense industrial base for national security purposes. According to the

Congressional Research Service, “the Berry Amendment requires the DoD to give preference in procurement to domestically produced, manufactured, or home grown products...in order to protect the US industrial base during periods of adversity and war.”³³ This legislation also represents a tool Congress can use to satisfy their “reward system” by forcing defense contractors and government acquisitions professionals to keep business in the US – thereby introducing new jobs into the congressional members’ home states and districts. The Berry Amendment has also been revised a number of times to address the current issues of procurement and the industrial base, most recently in FY08.³⁴ Through testimony and careful analysis, Congress has attempted to keep abreast of the state of the industrial base. The initial KC-X competition showed politicians still recognize the need for a robust domestic industrial base. To that end, the original award of the KC-X contract to an overseas firm (Airbus via EADS and Northrop Grumman) elicited a large degree of resistance from congressional members.³⁵ The US bidder and manufacturer, Boeing, filed a protest the Government Accountability Office (GAO) sustained – and then directed a re-competition.³⁶ However, a concerted effort on the part of defense procurement professionals alone to maintain the US domestic industrial base does not go far enough.

Dr. Ronis states that a concerted interagency effort must exist within the government aimed at preservation of the US domestic industrial base.³⁷ This effort currently does not exist because the DoD and other government agencies take a very myopic view of the overall domestic industrial base.³⁸ While the DoD promotes a forward-thinking DMSMS initiative aimed at “consider[ing] DMSMS through a system’s life cycle...” it does not take into account such pieces of the industrial base as the auto industry.³⁹ Ronis asserts that because the various aspects of the industrial base are highly complementary, any action by one part of the

government to regulate or otherwise affect one part of industry will have second- and third-order effects on the overall domestic industrial base.⁴⁰ In order to preserve the US capability to mobilize effectively for wartime production, the government must start to work more closely internally and more effectively with industry as a whole. In the interwar period between World War I and World War II, mobilization planners realized the importance of developing these working relationships between government and industry.

Several learning experiences came from US participation in World War I. The failure of US preparation for war embodied one of the major issues studied during the interwar period. Many people, including Louis Johnson, realized that nothing less than a complete mobilization of the defense and civilian industrial base could prepare the US for a total war on the scale of World War I.⁴¹ To that end, Johnson enabled large-scale mobilization through interaction with the President, Congress and industry.⁴² The strategic environment at the time made it possible for Johnson to motivate the close cooperation between government and industry. The same motivation, however, does not exist today.

While a state of war exists today, the possibility of state annihilation through war does not. In World War II, all parties understood the Axis powers truly threatened US state survival. This fact limited the options to two necessarily simplified choices: cooperate toward a common goal of victory or face the possibility of eventual defeat. While the environment has not changed fundamentally, the government's assessment of the threat has changed. Today's government does not constrain choices to the limited options seen during World War II. While defense contractors would like to perceive themselves as responsive to the government, this perception is not always valid. Defense contractors' true motivation lies in the revenue-generating properties of any task they perform, due to their "reward system" of responding to shareholders' demands

for increased profitability. Conversely, the government must fill their requirements in an environment of fiscal constraint. Often, these two motivations do not coincide to a level that pleases both parties. Facing state annihilation, the defense industry would likely subjugate their desire for profit to their desire for survival and the government would likely pay a premium for a tool that would help them emerge victorious. Ironically, this situation would likely provide the conditions to satisfy both parties – quick response from industry with a relatively affordable product and great profitability for the contractor due to massive production requirements. However, without the threat of state annihilation, the goal of profitability will continue to clash with the practice of penny-pinching because of the competing “reward systems” of Congress, the defense industry and defense acquisition professionals. Thus, the level of motivation for cooperation toward a common goal does not exist as prominently in today’s environment. Without that motivation, effective collaboration between government and industry to preserve the defense industrial base likely will not happen. America needs something better. The same way the US has a limited war military strategy, it needs one for government-industry collaboration.⁴³ Even with the proper motivation, America’s industrial base is not poised to respond due to the military’s demand for technology and capability that diverges from the civilian sector.

In the past, technology utilized by the domestic industrial base to fill military requirements was very similar to that demanded in the civilian market.⁴⁴ However, the high technology end-item solutions that are necessary to give the military their required capabilities have no real application in the civilian world. Not very many airlines or aero clubs are clamoring for an airplane that can evade radar, fly to the opposite side of the world with air refueling capability, and drop a nuclear or conventional payload – all for just over \$1 billion per

aircraft. While the civilian sector may be interested in related or derived technologies, it seems unlikely that the civilian sector would spend the requisite amount of funding for the development of such technologies unless there was an established demand in the mainstream civilian market. As military development and production has become more of a niche market for industry, the DoD's budget for research, development, test and evaluation (RDT&E) as well as procurement has more closely matched the resources available in the budget rather than the true capabilities of the industrial base.⁴⁵ This practice stems from the fact that both Congress and DoD assume that simply because the industrial base has always been able to respond to national defense needs, it will always be capable to do so in the future. The Aerospace Industries Association (AIA), a trade association that represents the United States' leading aerospace manufacturers, says that is no longer a valid assumption.⁴⁶

One of the reasons AIA takes this position is because of the incompatibility between the requirements generation, budgeting, and acquisition timelines of DoD's defense acquisition enterprise and those of industry. Based upon strategic guidance and national objectives, the DoD looks out many years into the future to judge the capabilities required to realize those objectives. Next, DoD places resources against the effort to develop and produce those capabilities over a time-phased program that lasts many years. Conversely, industry must remain profitable in the near term. Secondary to that need is a desire for a sense of projected profitability in the future. If a company or division of a company is not profitable, they will likely go out of business or merge with another firm. No matter which course of action the unprofitable firm takes, much expertise and capacity is lost. Put simply, DoD relies on the industrial base to provide a capability for many years into the future when the reality is that the firms who can provide this capability may not be in existence at the time of the DoD's need.

As the industrial base continues to disappear, robustness and flexibility of US strategy is increasingly impacted. Changes in strategic guidance require additional capabilities for the military to accomplish their essential, implied and specific tasks aimed at achieving the desired end state. However, the reduction in expertise and production capacity limits how quickly the industrial base can provide those capabilities to the warfighter. Additionally, the highly specialized nature of defense requirements victimizes national strategy. As the defense industrial base continues to diverge from the civilian industrial base, the ability to mobilize the domestic industrial base similar to that of World War II becomes more difficult. At one time, automobile manufacturers could stop making cars and start making aircraft because the technological complexity was somewhat similar. Today, that is no longer the case. It would take much more than a new facility to have assembly line workers stop making Ford F-150s and start making F-22s, which is why both the warfighter and defense industry prefer to keep production lines open as long as possible. Keeping production lines open preserves both the expertise and tooling necessary to provide the required capability to the warfighter – and helps prevent the additional outsourcing of capabilities to firms overseas.

In a sense, the US industrial base is more fragile than it is flexible. The mobilization of today's US domestic industrial base cannot approach the level seen during World War II. The number of experienced defense contractors has decreased dramatically, losing a great deal of production capacity and technical expertise. The shrinking defense budget has also wreaked havoc within the domestic industrial base. The government can no longer afford the necessary items required to accomplish the mission assigned, and the defense contractors cannot produce enough revenue in today's fiscal environment to remain profitable. As a result, defense contractors have had to look overseas in order to both create income through defense contracts as

well as saving money through offshoring portions of their capabilities. Even though the US is at war, the government has assessed that a threat to state survival does not exist. This assessment does not promote effective collaboration between the government and industry. Finally, the divergence of the technology and capability requirements of the defense industrial base from the overall domestic industrial base has created a fragile, niche market industrial base. Beyond America's vanishing industrial base, troubles within the defense acquisition organizational structure has had a huge effect on why the defense acquisition community has exercised poor decision-making ability of late.

Playing Nice With Others

According to defense acquisition guidance, three principal decision support systems must work in harmony to effectively deliver capabilities to the warfighter.⁴⁷ These three systems are the requirements process, the budgeting process and the acquisition process – collectively referred to as the “Big A” of acquisition organizational structure. However, the inefficiencies within and conflicts between the various acquisition decision support systems affect US national strategy by limiting available military options and capabilities. Instead of prioritizing joint requirements and dedicating the resources to fulfill them in accordance with strategic guidance, the acquisition organizational structure bogs itself down in the pursuit of many different requirements of “equal” importance. Prior to any meaningful analysis, a primer in the machinations of the three decision support systems helps frame the argument. The requirements process represents the starting point for identifying any necessary capability the warfighter must have to accomplish the mission.

The Joint Capabilities Integration and Development System (JCIDS) embodies the requirements process in the acquisition organizational structure. According to the Defense

Acquisition Guidebook, the true aim of JCIDS is to “ensure the capabilities required by the joint warfighter to successfully execute the missions assigned to them are identified with their associated operational performance criteria.”⁴⁸ The DoD created the JCIDS process in 2003 to replace the outdated method of generating requirements. The DoD made this move to shift from a threat-based method of addressing requirements to a capabilities-based method. Put simply, JCIDS does not purposefully look at potential threats that face the nation and react to them, but actively seeks to achieve the capabilities required to meet national objectives present in strategic guidance such as the National Security Strategy, the National Defense Strategy and the National Military Strategy.⁴⁹ Instead of focusing on threats at the tactical level, such as developing a weapon system to defeat the latest MiG, warfighters must widen their scope to identify capabilities gaps at the higher levels of warfare. While the system is set up to focus more broadly on the operational and strategic levels of war, the end result is often the same.

For example, in the 2006 National Security Strategy, one of the objectives is to “develop agendas for cooperative action with the other main centers of global power.”⁵⁰ Within that national objective, the US reserves the right to take action against states that threaten US interests. Implicit in that position is the need to maintain a credible force capable of gaining and maintaining air superiority. Therefore, the requirement for a capability the DoD designed the F-22 to meet is still valid.

To meet these national objectives, the warfighter must first identify and fill the capabilities they do not currently possess. The warfighter does this through a capabilities based assessment process sponsored by a component service or Combatant Command that identifies the capabilities gap – the “space” between the current capability and what they need to accomplish the national objectives.

This process also recommends a materiel or non-materiel solution to address any identified capabilities gap. Changes to doctrine, training, common practices or other bureaucratic processes are generally sufficient to address any recommended non-materiel solutions. For example, a capabilities gap may exist regarding the efficacy of ground control of close air support. However, the capabilities based assessment may find that a change in the training of joint terminal attack controllers would fill that gap – not a new gadget. If the capabilities based assessment recommends a non-materiel solution, the organization sponsoring the assessment must authorize the recommended change to the appropriate process or practice. Non-materiel solutions are usually the preferred approach as the warfighter can implement them more quickly and cost-effectively than materiel solutions. However, if the assessment recommends a materiel solution, the sponsoring organization (component service or Combatant Command) must prepare a document outlining the gap in capabilities and the necessity for a materiel solution to fill that gap. This document, in turn, must be approved by a statutorily mandated authority consisting of the Vice Chairman of the Joint Chiefs of Staff along with the Service Vice Chiefs.⁵¹ JCIDS supports the budgeting process by identifying those capabilities that the DoD must fund along with affordability information developed during the capabilities based assessment.⁵²

The Planning, Programming, Budgeting and Execution (PPBE) process represents the budgeting decision support system. The purpose of PPBE is to help DoD manage its limited resources while staying within the policies, strategy and prioritized goals set forth by the Secretary of Defense.⁵³ PPBE consists of four discrete phases: Planning, Programming, Budgeting, and Execution. In the Planning phase, fiscally constrained guidance is developed for

the DoD components that will tell them how to program for the funding of their prioritized requirements, called the Joint Programming Guidance.

DoD components use this programming guidance to develop proposed resource packages detailing the allocation of funding within each component. These program proposals are Program Objective Memorandums, which suggest resource allocation for the next six years. These Program Objective Memorandums are the basis of the Programming phase as it represents a detailed plan to allocate resources against certain efforts that fall within the guidance and priorities of the programming guidance. Each DoD component submits a detailed resource allocation request which is then reviewed by senior defense officials to ensure the total defense program effort is both coherent and complete.⁵⁴ During the Budgeting phase (which runs concurrently with the programming phase), each DoD component submits a budget estimate that complements the resource allocation request. This budget estimate breaks the proposed funding out into much higher fidelity, justifying to Congress that the components have properly and fairly resourced their request. For example, the Program Objective Memorandum would recommend allocating resources (both manpower and funding) to accomplish a modification to an existing airframe coupled with a macro-level funding request (total cost of the modification or major efforts of the modification). The associated budget estimate would break down each element of the modification effort to justify the expenditure of every dollar to ensure the DoD is spending the taxpayer's money wisely.

The final PPBE phase, Execution, reviews the efficacy of currently appropriated and authorized funding associated with ongoing programs. Put simply, Execution reviews make sure that programs with associated funding are spending those resources in a manner that falls within both current guidance and best business practices. The goal of the defense acquisition enterprise

is to be a good steward of the taxpayer's dollar, and the PPBE process helps ensure this through constant reviews and performance appraisals. PPBE also informs the acquisition process by detailing which efforts will have resources placed against them for execution.

The Defense Acquisition System (DAS) embodies the third decision support system, the acquisition process, and is commonly referred to as the “little a” of acquisitions. According to DoD Directive 5000.01, the purpose of the DAS is to manage the “process by which the DoD provides effective, affordable, and timely systems to the users.”⁵⁵ This process is event-driven whereby each program of record must pass through a series of gates – called milestones – that assess the program on a number of levels. At a very basic level, the milestone reviews ensure that each program is executing within the projected cost, is on schedule, and meets the performance parameters defined by the warfighter. Over time, programs proceed along the lifecycle of acquisitions – from development to testing, then to production, fielding and sustainment, and finally to disposal.

These three decision support systems should work cohesively to achieve the goal of supporting the national objectives. Ideally, the warfighter identifies a requirement that DoD then budgets for and finally develops and produces a solution to fill the stated requirement.⁵⁶ These three processes, however, do not fall under the oversight of a single responsible entity and have evolved separately with no real regard for the other processes they influence. Additionally, the timelines governing the processes do not line up, throwing the organizational structure out of balance. Finally, the lack of real prioritization within the DoD acquisition enterprise has led to the recent rash of poor decision-making in the eyes of Congress, the ever-present media and some senior defense officials.

JCIDS (requirements), PPBE (budgeting) and DAS (procurement) all inform and nominally support one another, but are responsive to different masters. The Joint Staff's J-8 Requirements Management Division principally manages, updates, and executes the JCIDS process.⁵⁷ The reason this responsibility rests within the Joint Staff stems from the desire to create a more joint warfighting environment. The entire purpose for creating JCIDS was because many principal leaders in the Pentagon did not feel the old requirements generation process sufficiently addressed the joint warfighter. To defeat 21st century foes, the United States requires a more integrated and effective joint warfighting force. Under the former requirements construct, jointness was encouraged but not mandatory. Each individual service could propose a requirement that dealt with a perceived threat to their specific mission area and shepherd it through the acquisitions process.⁵⁸

Under the newer JCIDS process, however, any capabilities gap identified should recommend a solution that considers the joint battlespace. According to the JCIDS manual, any proposed capabilities based assessment should be rooted in an approved joint concept, concept of operations, Combatant Command, component service or other defense agency.⁵⁹ DoD leadership will judge this assessment and its proposed solution based upon how well it contributes to the joint environment, not how it augments a particular service's capabilities. Again, the desire is to leverage off the synergistic nature of the joint warfighting environment while reducing the duplication of effort and inefficiencies found in the individual services. Though noble in its intent, the Joint Staff still manages JCIDS in a relative vacuum with respect to the other decision support systems within the defense acquisitions enterprise.

JCIDS and DAS support the same goal of providing the warfighter with the capability necessary to successfully accomplish the mission and support the stated national objectives.

However, the mentality still exists that there are certain “lanes” that are inviolable. For example, if the acquisition community gets too involved with the requirements process, many see them as interfering by pre-supposing a solution based upon extant technology, capability or perceived threat. In the acquisition community, pre-supposing a solution is not only a cardinal sin, but often illegal in that the perception of impropriety may exist that the acquisition community favors a certain contractor, method or weapon system when bridging the warfighter’s capability gap. Conversely, if the requirements community gets too involved with the acquisitions process, they are seen as generating “requirements creep” whereby the desired capability is constantly tweaked to offer unplanned capability in one (or several) areas. The F-22 program represents a classic case in requirements creep. Initially planned as an air superiority fighter to replace the F-15, the F-22 suddenly had another mission to accomplish when the Air Force voiced its desire to retire the A-10. Well into development and testing, the F-22 suddenly had to become not only the pre-eminent air superiority fighter, but an effective air-to-ground platform as well – enter the F/A-22. This additional mission drove a number of modifications to the aircraft that both increased the cost and extended the program’s schedule. When leadership discovered that the F/A-22 could not perform both missions effectively, the Air Force retained the A-10 and tasked the F-16 to augment the A-10’s capability. However, in the eyes of many acquisition professionals, the requirements community had wasted copious amounts of time and money by straying too far into the procurement process. To maintain the sanctity of these “lanes,” the Joint Staff manages the JCIDS process alone. While one organization principally manages the JCIDS process, several organizations oversee PPBE.

In the Planning phase, the Office of the Undersecretary of Defense for Policy ensures the guidance provided to the programmers and budgeting staff coincides with current national policy

and strategic objectives.⁶⁰ This policy group is the DoD's pre-eminent organization to ensure that the goals and capabilities of the DoD align precisely with the national strategic objectives.⁶¹

In the Programming phase, the Office of the Undersecretary of Defense for Program Analysis and Evaluation ensures that the service resource requests align with the programming guidance and offer a coherent, complete defense program.⁶² The Program Analysis and Evaluation group ensures that DoD components adhere to the guidance and established defense program by conducting reviews and issuing Program Decision Memorandums. These memorandums are directive documents that denote any changes to the requested service budgets. These changes are generally not reviewable and the services must incorporate any changes into their budget requests.

In the Budgeting phase (which runs concurrently with the Programming phase), the Office of the Undersecretary of Defense Comptroller ensures that the requested service budgets fit within the prescribed overall defense budget.⁶³ Analysts conduct reviews and based upon a number of factors (including the need to shift resources to higher priorities), the comptroller issues Program Budget Decisions to ensure the services allocate resources properly within fiscal constraints. These directive documents denote changes to requested service budgets. The real difference in between the two documents is that the Program Analysis and Evaluation group roots their changes in guidance, where the comptroller bases any changes upon ensuring a balanced budget. For example, the comptroller may change the amount of money available for a certain effort from one year to another, but the intent is only to "balance the books." Conversely, the Program Analysis and Evaluation group may cut (or increase) funding for an effort to more closely align with strategic guidance, regardless of whether or not the budget is balanced.

DoD principally leaves the Execution phase to the services, but with comptroller input. The comptroller issues projected expenditure rates whereby the services have a standard to judge their execution.⁶⁴ If the services spend money faster than the standard, they may be in danger of a cost overrun. If the money is spent too slowly, the services may have the money taken away from them to put toward other priorities within DoD.

Only in the Planning phase does the requirements process interact and affect the budgeting process. Even then, JCIDS simply identifies a new funding priority and tells the PPBE it must address this new priority within the current fiscal constraints. The procurement process interacts regularly with PPBE, but not effectively. For example, the expenditure rates published by the comptroller are straight-line rates – these rates do not take into account large expenditures at one time, such as the awarding of a contract. This becomes especially evident if an acquisition program has planned the contract award for the last quarter of the fiscal year. Through the entire year, program managers constantly have to explain why their program is under-executing funds, and leadership threatens them with the fact that a higher authority will take the funds if they do not spend them in a timely fashion. Additionally, the organizations issuing the aforementioned directive memorandums and decisions only have a peripheral knowledge of the acquisition program and its contribution to the joint warfighting environment. Certainly, the analysts make a valiant attempt to learn these programs, but the scope of their responsibility spreads them very thin.

The Office of the Undersecretary of Defense for Acquisition, Technology and Logistics manages the acquisition system and serves as the Defense Acquisition Executive.⁶⁵ Of the three decision support systems, the DAS is the most inclusive. The Acquisition, Technology and Logistics office chairs a Defense Acquisition Board, which offers advice and provides guidance

for significant acquisition decisions. Principal members of this board include representatives from the policy group, the comptroller, the Program Analysis and Evaluation office, and the Joint Staff – among others.⁶⁶ While formal Defense Acquisition Board reviews typically occur for only those acquisition programs subject to oversight from the Office of the Secretary of Defense, the spirit of the board's inclusiveness filters down to the programs managed at the component level.

The three decision support systems – JCIDS, PPBE and DAS – represent large investments of time, manpower and funding aimed at the common goal of providing the warfighter the necessary capabilities. However, vast inefficiencies abound because of the variances in how the managers of each process interpret and comply with strategic guidance. These inefficiencies do not exist purposefully or through the neglect of any one person or organization. Rather, the practice of segregating the three decision support systems due to their inherent differences and purposes promulgates many of the inefficiencies and nodes of conflict. To resolve this issue, common oversight from a single responsible organization would help to ensure a greater degree of harmony and interaction between the three systems.

Another reason the three decision support systems sometimes fail defense acquisition professionals is because of the mismatch of timelines. The requirements process, JCIDS, is an event-based process that activates once a sponsoring organization identifies a needed capability. As it is event-based, JCIDS may have one, one hundred, or even more capability gaps presented in a given year. DoD designed JCIDS as a very flexible and tailored process that can adapt to almost any situation at hand, making it the preferred method of generating and validating requirements.

Conversely, the budgeting process, PPBE, is a biennial cycle that marches on regardless of the number of requirements it must fund. DoD implemented this two year cycle in an attempt to take some of the workload off already overworked component staffs, and broke the two periods into “on-year” and “off-year” categorizations.⁶⁷ During an “on-year,” DoD requires component staffs to submit a consolidated resource allocation request that covers the next two years. After the necessary reviews, changes, and subsequent approval, this request is the DoD baseline for the next two years. During an “off-year,” DoD requires services to simply address “fact-of-life” issues and other required alterations to the previously approved budget request.⁶⁸ This sounds like a good deal on the surface because it reduces workload for the staffs and allows them time to prepare a well-articulated budget request every two years. However, this process has built a great deal more inflexibility into the system.

During the “off-years,” DoD is very hesitant to approve any additional programs that were not requested and justified in the previous budget request. There are exceptions to this rule, of course, but the general rule of thumb is that new programs will have to wait until the next budget cycle before they will receive funding. In effect, what this biennial cycle means is that any new requirement validated by JCIDS will have to wait until the next time the services build a budget to request funding. As a result, both the warfighter and acquisition professionals often decry the budgeting process as unresponsive and unnecessarily extending the timeline to initiate a program. Additionally, strategic guidance, national objectives, and DoD’s interpretation of them change so quickly that the “off-year” concept has really never materialized.⁶⁹ Component staffs work just as hard during the “off-years” responding to these changes as they do during the traditional “on-year.” As bad as some view the budgeting process, others downright loathe the acquisitions process.

Like the requirements process, the acquisitions process is an event-driven process that relies on statutory and regulatory information requirements to progress.⁷⁰ Because the DAS represents the process where professionals actually fill the warfighter's capability gap as well as where the bulk of the money is spent, much scrutiny befalls the DAS. On one hand, Congress and the Office of the Secretary of Defense ensure that the capability provided to the warfighter out of the DAS process aligns with strategic guidance and helps fulfill the national objectives. On the other hand, Congress and the Office of the Secretary of Defense ensure that the DAS process spends the taxpayer's dollar wisely by getting the best value for the government. One of the events the DAS must wait for is the biennial budgeting cycle mentioned above. The DAS cannot proceed with an acquisition program if Congress has not authorized and appropriated the necessary funding. Because the timelines of the three decision support systems are not closely aligned, often many months (if not years) transpire before the acquisition enterprise can make discernable progress toward fulfilling the warfighter's requirement.

There is no smooth mechanism for moving every requirement from the JCIDS process into a ready and waiting budgeting construct that can document the validated requirement and justify receipt of immediate funding (much less the funding itself). Nor is there a mechanism for subsequently incorporating the validated, funded requirement into the DAS for immediate fulfillment once the requirements process is complete. Though the timelines discussed earlier necessarily play a part in this quandary, an additional reason for this is due to the lack of prioritization on the part of JCIDS.

Many acquisition professionals often lament the perception that JCIDS has never met a requirement it did not like. Since its inception, this new requirements process has been a prolific generator of requirements that the budgeting community and acquisitions process must address

with no discernable priority among them. In fact, the Government Accountability Office (GAO) reported to Congress that “proposals for new capability needs and system solutions are not systematically prioritized...and virtually all proposals that have gone through JCIDS have been validated.”⁷¹ Further, the GAO fears that ultimately the warfighter will suffer because of the fact that JCIDS continues to add requirements to a defense program that contains more needs than available resources.⁷² While unfunded requirements certainly exist, the budgeting and acquisitions processes attempt to be responsive to the warfighter and address their needs by putting some amount of funding against every requirement possible. This results in a terribly inefficient portfolio of programs by taking away funding from programs with adequate funding to jump-start the newest effort dictated by the requirements process. The reason for this inefficiency is the lack of joint requirements prioritization coming out of JCIDS. If the requirements process adequately prioritized the efforts it approved, both the budgeting and acquisition processes would be able to place the proper resources against the efforts most critically required by the warfighter.

Put together, the acquisition decision support systems’ current inefficiencies affect US national strategy by limiting available military options and capabilities. Instead of prioritizing joint requirements and dedicating the resources to fulfill them in accordance with strategic guidance, the acquisition organizational structure promotes unnecessary inefficiency by pursuing many different requirements of equal importance. In recent years, Congress, DoD leadership and service acquisition professionals have taken note of this problem and instituted changes under the guise of “acquisition transformation/reform/excellence” – hereafter referred to simply as acquisition reform. However, acquisition reform as it exists will never work.

Putting a Band-Aid on a Sucking Chest Wound

In its simplest form, acquisition reform is represented by the time-honored tradition of uttering what every program manager or acquisition official has said throughout history: “We’ve got to find a way to do this faster, better and cheaper!” The entire goal of acquisition reform is to get a capability to the warfighter that fits exactly his needs (and maybe a little more) in a timely fashion where it is effective in its intended operational environment – all under the projected budget. A noble goal, to be sure, but unrealistic in today’s environment.

Believers in acquisition reform seem to think that DoD can strike a balance between streamlining processes with emphasis on the outcome of the acquisition system – all while maintaining the correct level of oversight. If too much oversight exists, constant bickering and second-guessing occurs, bogging down or completely stopping the process. Additionally, too much oversight can cause weapon system development to take a very long time, allowing strategic guidance to shift and change. Strategic guidance can change every four years with the turnover of Presidential administrations – or more often depending upon changes in the strategic environment, such as the 9/11 terrorist attacks. When strategic guidance changes, the possibility arises that the government cannot recoup the substantial sunken cost, and the program never produces a weapon system.⁷³

Conversely, if too little oversight exists, the warfighter receives something that might be pretty and works well at providing a myriad of additional capabilities, but does not provide the capability required. A very simple example exists in the procurement of a challenge coin. GEN Doug Brown, former commander of US Special Operations Command, wanted to give a challenge coin to members in his command that would not only serve as a memento, but also as a functional can opener in the field. He gave this guidance to his staff and promptly moved on to

matters of greater importance. When the manufacturer delivered the final product, the challenge coin was very pretty, lightweight and coated to remain silent in the field – but snapped into pieces if the user tried to open a can with it. Both DoD leadership and acquisition professionals recognize the need to avoid such mistakes – especially when dealing with multi-million dollar programs. To achieve the goal of acquisition reform, a number of initiatives have taken place just in the last twenty years.

In the 1990s, the DoD's defense acquisition policy, embodied in the DoD 5000 series documents, were constantly changed to streamline processes and add a measure of flexibility – all to no avail.⁷⁴ DoD's frustration came to a head on 30 Oct 2002 when the Deputy Secretary of Defense Paul Wolfowitz cancelled the DoD 5000 series and provided new guidance for the conduct of the acquisition system.⁷⁵ However, Wolfowitz' intent was largely the same as previous rounds of acquisition reform: streamline processes, increase flexibility, push decision-making down to the lowest level to empower program managers and allow them to apply innovative solutions to the problem at hand.⁷⁶ The most recent attempt to reform the acquisition process took place in the latter part of 2008. DoD placed more emphasis on integrating the requirements and acquisition systems, but largely focused (once again) on processes. Certainly, bridging these two decision support systems requires new processes, but acquisition reform should do more than tweak existing or invent new processes aimed at efficiency and flexibility.

Critics of acquisition reform take a more pessimistic view. Harvey Sapolsky, an MIT professor on Public Policy and Organization, thinks that acquisition reform is simply too hard. Sapolsky says that the DoD cannot reform the acquisition enterprise simply because “we want crazy things. [W]e want a tank that can survive a shaped charge round, pack its own lethal punch and is airlifted by a C-130.”⁷⁷ No matter how much DoD streamlines the processes or

tries for flexibility, the acquisition system cannot be fixed – meaning the warfighter and taxpayer will have to live with cost overruns, schedule delays and constant disappointments in performance characteristics.⁷⁸ Benjamin Friedman, a research fellow for the CATO Institute, seems to subscribe to Sapolsky’s argument, but hits a little closer to the real problem within the acquisition system. While supporting Sapolsky’s assertion that acquisition reform is too hard because of the technological complexity required to fill warfighter requirements, he states that no entity can “fix acquisition until you change the incentive structure that produces its outcomes.”⁷⁹ However, Friedman still focuses on technological complexity as the way to generate acquisition reform. Regardless, Friedman was on to something; the way to produce real and lasting acquisition reform deals with incentives.

In September of 2009, Maj Gen Randal Fullhart, the Director of Global Reach Programs for the Assistant Secretary of the Air Force (Acquisition), raised the notion that the true problem with acquisitions is that the “reward systems” thrust upon the stakeholders in the acquisition enterprise do not coincide.⁸⁰ The major stakeholders in defense acquisitions are Congress, the defense industry, the warfighter, and government acquisition professionals residing within the three acquisition decision support systems (JCIDS, PPBE and the DAS). Different criteria judge all of these stakeholders – even those within the government.

Their respective constituencies judge congressional members with respect to how many jobs they bring into their state or district. Shareholders judge the defense industry regarding the margin of profitability. Within the government, leadership judges the JCIDS process by how quickly it can validate the capabilities gaps that plague the warfighter. Leadership also judges programmers in the PPBE process by how many programs they can fit into the Future Years Defense Program (FYDP) without driving additional bills. The DoD judges the budgeting staff

within the PPBE process by whether or not the budget balances within the Total Obligation Authority given to their respective component. Both military and civilian leadership judge the warfighter by how well they can leverage capabilities to achieve military objectives that support the military end state derived from strategic guidance. Finally, civilian and military leadership judges acquisition professionals within the DAS by cost, schedule and performance – whether or not they can get an affordable capability to the warfighter that fits his needs in a timely fashion. Nowhere do these “reward systems” align with each other, causing each stakeholder to chase after tangentially related goals that serve to decrease the efficiency of the acquisition system. Thus, the true way to conduct acquisition reform is to modify the incentives that each stakeholder chases.

The current reward systems are too well entrenched to modify significantly, but codifying changes to current practices in law would go a long way to adjusting the behavior of the stakeholders. For instance, if Congress passed into law a measure that dictated the DoD would procure (or make a major modification to) a major weapon system every 5 years – and require that DoD receive the appropriate funding – most stakeholders would rejoice. Congressional members would bring additional jobs to their states/districts on a more frequent basis, the defense industry would become more stable and profitable due to the assurance of long-term employment and the DoD would have assured funding placed toward major acquisition programs. This measure would also help shore up the industrial base by assuring long-term profitability, and provide defense acquisition professionals some measure of funding prioritization – allowing for more efficient execution of weapon system development programs.

To be sure, downfalls exist with this approach. For instance, if a capabilities gap does not exist, but the law states it is time to procure or modify another weapon system, spending

money simply for the sake of spending money would not help fulfill DoD's goal of being a good steward of the taxpayer's dollar. However, the various stakeholders could integrate the findings of the Quadrennial Defense Review process into a separate analysis of the state of the industrial base to assess strategic priorities. Another potential downfall is that parochial interests even within the DoD would continue to exist. Is an aircraft procurement program more important than a shipbuilding program? Regardless, no perfect solution to the question of acquisition reform exists. What does exist, though, is a need to address the root of the problem with acquisition reform: stakeholders' reward systems.

Conclusion

Defense acquisition is at a crossroads. If acquisition professionals continue to do "business as usual," nothing good can come of it. Congress will eventually intervene; the defense industry may atrophy and disappear completely; or the warfighter will simply have to make do with capabilities that do not meet their requirements – leaving them unable to help realize the national strategic objectives.

America's vanishing industrial base since World War II has contributed to the problem as it currently exists. The reduction in the number of firms in the defense industry coupled with the loss of expertise means that there is less capacity (both materiel and mental) available if the nation is required to mobilize to the degree of World War II. Additionally, budgetary issues brought about by today's fiscally constrained environment have choked the industrial base of necessary revenue, forcing many firms to re-evaluate whether or not they want to continue in the defense industry. The practice of offshoring has eroded the US industrial base by sending the expertise and production capacity overseas, possibly making it unavailable to the US in times of crisis. The lack of a threat to state survival has continued to hamper the defense industrial base

because there is no real reason for close collaboration between the government and industry like there was during World War II. Finally, the fact that the defense industrial base has become so highly specialized, it has effectively isolated itself from the rest of the domestic industrial base – increasing the difficulty of nationwide mobilization should the situation require it. Besides the trouble with a disappearing industrial base, the defense acquisition organizational structure is out of balance.

The three acquisition decision support systems (JCIDS, PPBE and the DAS) inform decision-makers and attempt to help them exercise prudence in their judgments. However, the lack of real integration between the three decision support systems often gives more frustration than aid. In theory, these systems should operate as cohesive, overlapping processes that support and inform one another. In reality, these processes operate in a bubble with limited interaction. Additionally, the requirements and acquisitions systems are event-driven processes that do not marry up efficiently with the temporally driven budgeting process. The federal defense budget is typically steady (with some variations, of course), forcing the budgeting process to fit the wildly fluctuating demands of the requirements and acquisition systems into a construct where inefficiencies are maximized. Finally, the lack of requirements prioritization means that limited resources are spread very thin, chasing priorities of equal importance. A common organization or entity to oversee these three decision support systems would help in generating increased efficiency by having them support and inform one another to a greater degree. However, ensuring a viable industrial base and healthy decision support systems will not mean much if the DoD cannot reform the acquisition enterprise to be more efficient and responsive.

In the past, acquisition reform has focused on bureaucratic processes trying to make them more efficient and flexible. While flexible, streamlined processes certainly help, the true

problem with the current acquisition system lies with the “reward systems” by which the major stakeholders are judged. While Congress, the defense industry, the warfighter and government acquisition professionals chase the same goal, vastly different criteria judge their performance and efficacy. In the end, these stakeholders end up undermining each other (and the total effort) by seeking to gain the maximum reward from their individual systems of reward. Until common incentives exist, true acquisition reform may never materialize. Because of these shortcomings, the defense acquisition enterprise is simply not flexible or robust enough to handle the challenges of the twenty-first century.

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